

### REMARKS/ARGUMENTS

Claims 1-4 and 6-8 are objected to for failing to particularly point out and distinctly claim the subject matter with applicant regards as the invention. The use of the terms "one" and "other" to refer to the individual parts of the pig and to the complementary engaging elements and in identifying between multiple options and relationships is deemed highly confusing. Also, the Office Action contends that this phrasing has led to internal inconsistencies.

In response, the claims were amended to eliminate the phrasing of "one" and "other". Instead, the pig sections are referred to as including a movable one and a rotationally stationary one, which terminology should obviate any confusion. Likewise, the complementary engaging elements are referred to as including an integral one and a separate one, which terminology should obviate any confusion.

Claims 5 and 9 (as opposed to claim 8) were amended to include the preposition "to" after "adjacent" as recommended by the patent examiner, although its omission still would be proper English, i.e., "adjacent the ..." versus "adjacent to the ...".

Claims 2 and 8 were amended to keep the terminology consistent as concerns the complementary engaging elements (as opposed to configurations). Claims 3, 4, 7 and 8 were likewise amended to maintain consistency in terminology in view the amendment to the independent claims as concerns identifying the complementary engaging elements.

Claims 1-9 were rejected under 35 USC 103(a) as being unpatentable over Reich (US 5,672,883). The rejection is traversed.

The Office Action contends:

*However, Reich does not explicitly teach the pig sections configured in a manner to allow separation without the user to manually grasp one of the two pig sections.*

*Since it is commonly well known in the art that expedient removal of radiopharmaceuticals from pigs, and reduced exposure to operators is advantageous, it would have been obvious to one of ordinary skill in the art at the time of the invention to alter the pig of Reich for one-handed operation. This could be accomplished in numerous ways. One apparatus and method would be to increase the weight of the lower (22) portion of the pig so that it would not tip over when an angular force was applied to the upper (2) portion for its removal using one hand. Reich teaches that the pigs are heavy due to internal radiological shielding (Col. 6, ll 19-28), thus it would have been obvious to design a pig such that the lower portion has the necessary mass.*

*Another apparatus and method that would have been obvious to one of ordinary skill in the art at the time of the invention would have been to remove the upper (20) portion of the pig while it braced against one of numerous well known support structures -- such as a shipping container, a retention brace, an L-block radiation shield, or a counter top. Reich teaches the use of well-known shipping containers such as an "ammo can". (Col. 10, ll. 53, for example).*

The Office Action relies on equating the "complementary engaging elements" with the mating ends 30, 34 of Reich. When the mating ends 30, 34 of Reich are engaged, however, they fail to hold rotationally stationary each other or the pig sections. The Reich pig is freely transportable, that is, non-rotationally stationary, when its mating ends are engaged. At best, the engaged mating ends hinder relative longitudinal movement of the two pig sections relative to each other, but they do not render either pig section rotationally stationary.

Further, the mating ends 30, 34 engage each other via screw threads. When they are fully engaged with each other, they may still be unscrewed from each other so that their fully engaged condition does not render either of them rotationally stationary. At best, the fully engaged condition prevents further rotational movement in the screwed on direction and further relative movement toward each other, but neither is rendered rotationally stationary in the opposite screwing direction. Even when one is held rotationally stationary (e.g., manually) while both are engaged, the other is still freely rotatable by unscrewing.

In contrast, independent claims 1 and 6 recite that when the separate one of the

complementary engaging elements is held rotationally stationary while the complementary engaging elements engage each other, the integral one of the complementary engaging elements is held rotationally stationary as well. As a consequence, the rotationally stationary pig section (to which the integral one is formed) is held rotationally stationary. This is advantageous for one hand unscrewing of the movable pig section from the rotationally stationary pig section.

Thus, it seems the Office Action confuses the concept of actually holding a pig section rotationally stationary by holding rotationally stationary a complementary engaging element (claims 1 and 6) with the concept of preventing relative movement of the pig sections with respect to each other (such as via mating ends 30, 34 of Reich).

The Office Action's speculation about modifying Reich for one-handed operation is noted but such unsubstantiated proposals are not justifiable grounds for finding an invention obvious. MPEP 2142 provides:

#### ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS

*To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria. (Bold added for emphasis)*

The third prong to establish a *prima facie* case of obviousness **requires that the prior art reference must teach or suggest all the claim limitations.** Here, the Examiner concedes that Reich fails to teach pig sections configured "to allow separation without the user needing to manually grasp one of the two pig sections". As a result,

this third prong has not been met and no *prima facie* case of obviousness has been made out. Since the finding of obviousness based on Reich alone is therefore contrary to the regulations promulgated under MPEP 2142 that the Examiner must follow and thus Office policy, the claim rejection warrants withdrawal.

Finally, the Examiner's suggestions for modifying Reich to provide for one handed operation do not appear to attain such a result. To open a pig, the pig sections are unscrewed from each other. Unless one or the other is held rotationally stationary, both will turn in unison in response to a twisting force.

Adding excessive weight to the lower one of the pig sections, as the Examiner proposes, will not prevent both pig sections from turning together in unison in response to a twisting force when the pigs are in an upright position. This is because weight force acts in a downward direction, not in a rotary direction. One or the other of the pig sections will still need to be held rotationally stationary to unscrew one from the other. Even if the pig were laid on its side, unless the pig were prevented from rolling, adding excessive weight to one or the other of the pig sections would not prevent the pig sections from rotating in unison with each other in response to a twisting force.

Likewise, bracing, as the Examiner proposes, would not result in one hand operation. Bracing one pig section against well-known support structures, such as a shipping container, a retention brace, an L-block radiation shield or a counter top, will not prevent the pig sections from rotating in unison with each other in response to a twisting force, unless one or the other pig sections is also held rotationally stationary while being braced. Indeed, these support structures would need to be adapted with complementary configurations capable of engaging the pig section so as to prevent its relative rotation; otherwise, both pig sections will turn in unison in response to a twisting force.

Finally, it does not logically follow that *since it is commonly well known in the art*

*that expedient removal of radiopharmaceuticals from pigs, and reduced exposure to operators is advantageous, it would have been obvious to one of ordinary skill in the art at the time of the invention to alter the pig of Reich for one-handed operation.*


There is no perceived advantage for expedient removal of radiopharmaceuticals from pigs. The use of radiopharmaceuticals is not in such great demand that pigs sit idle waiting for someone to devise an expedient content removal system. Indeed, haste makes waste when handling radioactive substances is concerned so the expedient removal of radiopharmaceuticals from pigs would not be desirable where it led to unwanted exposure to the worker. While reduced exposure for operators is advantageous as the Office Action mentions, persons of ordinary skill in the art would not find it obvious to turn to one hand operation. Instead, they may consider adding extra radiation resistant barriers to further such a goal, i.e., without any need to resort to one hand operation. Even if the exposure arising from two hand operation to open a pig would be motivation to modify the Reich pig so as to pursue a safer alternative, those skilled in the art would more likely consider automating the pig opening process with a motor to avoid worker exposure to radiation entirely during the opening process. One hand operation, however, which keeps the worker's hands completely shielded by the lead in the pig during the opening process, would not be an obvious result.

The newly added claims define the location where the integral one of the complementary engaging elements is located and an exemplary construction (see paragraphs [0020], [0021], [0023], [0024] of the application for support for this subject matter).

Applicant requests that a timely notice of allowance issue in this case.

Respectfully submitted,

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Claim 1 (currently amended): A radiopharmaceutical pig device that enables separation of two pig sections from each other without any need to manually grasp a rotationally stationary one of the two pig sections while moving ~~the other a~~ movable one of the pig sections to effect the separation, comprising:

~~two pig sections engaged with each other in an engaged condition, the two pig sections being~~ configured to accommodate and enclose radiopharmaceutical contents while the two pig sections are in ~~the an~~ an engaged condition, the two pig sections including a rotationally stationary one and a movable one; being ~~configured to separate from each other in response to one of the pig sections being moved away from the other; and~~

two complementary engaging elements that engage each other, the two complementary engaging elements including an integral one and a separate one, ~~one of the complementary engaging elements~~ the integral one being integrally formed with the rotationally stationary one of the two pig sections, the separate one, ~~the other of the complementary engaging elements~~ being held stationary and configured to hold rotationally stationary the integral one of the complementary engaging elements while being held rotationally stationary and while the two complementary engaging elements are engaged with each other, the two pig elements and being arranged to permit separation of the two pig sections from each other in response to disengaging the two complementary engaging elements from each other and thereafter moving the other movable one of the two pig sections away from the rotationally stationary one of the two pig

sections, but without any need to manually grasp the rotationally stationary one of the two pig sections to effect the separation.

Claim 2 (currently amended): The radiopharmaceutical pig device of claim 1, wherein the complementary ~~configurations~~ engaging elements comprise a multiple-sided ring and a multiple-sided recess or indentation.

Claim 3 (currently amended): The radiopharmaceutical pig device of claim 2, in combination with a separate element, wherein the ~~other~~ separate one of the two complementary elements being integral with the separate element, the separate element being selected from a group consisting of a shipping container that is sized to accommodate insertion of the two pig sections, a retention brace, an L-block radiation shield and a counter top.

Claim 4 (currently amended): The radiopharmaceutical pig device of claim 1 in combination with a pig retention brace and an L-block radiation shield, the pig retention brace having the ~~other~~ separate one of the complementary engaging elements and being secured to the L-block radiation shield.

Claim 5 (currently amended): The radiopharmaceutical pig device of claim 1, wherein each of the two pig sections have a respective end portion having a thickness and a sidewall portion adjacent to the end portion, the thickness of each of the end portions being thicker than that of each of the sidewall portions.



Claim 6 (currently amended): A method of separating two pig sections of a radiopharmaceutical pig device from each other without any need to manually grasp a rotationally stationary one while moving ~~the other~~ a movable one to effect the separation, comprising

engaging two pig sections with each other in an engaged condition, the two pig sections including the rotationally stationary one and the movable one;

accommodating and enclosing radiopharmaceutical contents between the two pig sections while the two pig sections are in the engaged condition; ~~the two pig sections being configured to separate from each other in response to one of the pig sections being moved away from the other;~~

engaging two complementary engaging elements with each other, the two complementary engaging elements including an integral one and a separate one; ~~one of the complementary engaging elements~~ the integral one being integrally formed with one of the two pig sections;

~~holding stationary the other of the complementary engaging elements and thereby holding~~ rotationally stationary the integral one of the complementary engaging elements with the separate one while holding rotationally stationary the separate one and while the two complementary engaging elements are engaged with each other; and

separating the two pig sections from each other in response to disengaging the two complementary engaging elements from each other and thereafter moving the movable one ~~other~~ of the two pig sections away from the rotationally

stationary one of the two pig sections, but without any need to manually grasp the rotationally stationary one of the two pig sections to effect the separating separation.

Claim 7 (currently amended): A method ~~as in~~ of claim 6, wherein the holding stationary includes fixing a separate element against movement, the separate element having the ~~other~~ separate one of the complementary engaging elements element, the separate element being selected from a group consisting of a shipping container that is sized to accommodate insertion of the two pig sections, a retention brace, an L-block radiation shield and a counter top.

Claim 8 (currently amended): A method ~~as in~~ of claim 6, wherein the holding stationary includes securing a pig retention brace to an L-block radiation shield, the pig retention brace having the ~~other~~ separate one of the complementary engaging elements configurations.

Claim 9 (currently amended): A method ~~as in~~ of claim 6, further comprising providing each of the two pig sections with end portions whose thickness is greater than that of portions of sidewalls adjacent to the end portions.

Claim 10 (new): The radiopharmaceutical pig device of claim 1, wherein the two pig sections when engaged with each other have opposite ends, the rotationally stationary one of the pig sections having one of the opposite ends and the

movable one of the pig sections having the other of the opposite ends, the one of the opposite ends that belongs to the rotationally stationary one of the pigs having the integral one of the complementary engaging elements.

Claim 11 (new): The radiopharmaceutical pig device of claim 10, wherein the integral one of the complementary engaging elements has a configuration that is selected from a group consisting of a multiple-sided ring and a multiple-sided indentation.

Claim 12 (new): A method of claim 6, wherein the two pig sections when engaged with each other have opposite ends, the rotationally stationary one of the pig sections having one of the opposite ends and the movable one of the pig sections having the other of the opposite ends, the one of the opposite ends that belongs to the rotationally stationary one of the pigs having the integral one of the complementary engaging elements.

Claim 13 (new): A method of claim 12, wherein the integral one of the complementary engaging elements has a configuration that is selected from a group consisting of a multiple-sided ring and a multiple-sided indentation.